

UNITED STATES DISTRICT COURT
DISTRICT OF MINNESOTA

DONALDSON COMPANY, INC.,

Case No. 09-CV-1049 (PJS/AJB)

Plaintiff,

v.

SUPPLEMENTAL
MARKMAN ORDER

BALDWIN FILTERS, INC.,

Defendant.

David J.F. Gross, Theodore M. Budd, Kevin P. Wagner, Chad Drown, Jared B. Briant, Jeya Paul, Elizabeth Cowan Wright, and Andrew F. Johnson, FAEGRE & BENSON, LLP, for plaintiff.

Mark A. Pals, Ann Marie T. Wahls, Paul R. Steadman, Scott S. Evans, and Thomas W. Osier, KIRKLAND & ELLIS LLP; Lora Mitchell Friedemann, FREDRIKSON & BYRON, PA, for defendant.

In this lawsuit, plaintiff Donaldson Company, Inc. (“Donaldson”) accuses defendant Baldwin Filters, Inc. (“Baldwin”) of infringing various patents related to air filters. The parties asked the Court to construe, in accordance with *Markman v. Westview Instruments, Inc.*, certain terms found in the claims of six patents. 517 U.S. 370, 390-91 (1996). After a hearing on May 9, 2011, the Court construed those terms in a *Markman* order. Order June 6, 2011 [Docket No. 105].

In its *Markman* order, the Court rejected the parties’ agreed-upon construction of the claim term “extension.” In their Joint Claim Construction Statement (“JCCS”), the parties had agreed to construe “extension” to mean “a portion of the frame arrangement/construction.” JCCS at 3 [Docket No. 84]. The Court found this construction unhelpful and further found that the parties had a genuine dispute over the meaning of “extension.” Basically, the problem was

that although the parties agreed that an “extension” is *a* portion of the frame arrangement, the parties disagreed about *which* portion of the frame arrangement is an “extension.” Rather than wait until the summary-judgment stage (or trial) to address this dispute, the Court directed the parties to submit supplemental briefing about how to construe “extension.”

The Court now construes the term “extension.” Relevant background information and general legal principles are found in the Court’s earlier *Markman* order and will not be repeated here except as necessary.

I. INTRODUCTION

The term “extension” appears in the claims of five related patents: U.S. Patent Nos. 6,190,432; 6,350,291; 6,610,117; 6,783,565; and 7,303,604 (collectively, “the ‘432-family patents”). The term also appears in the claims of U.S. Patent No. 6,517,598 (“the ‘598 patent”).¹ The ‘598 patent is not related (in terms of its prosecution history) to the ‘432-family patents, but one of the two inventors named in the ‘432-family patents, Steven Scott Gieseke, is one of the three inventors named in the ‘598 patent.

For present purposes, only a small portion of the inventions claimed in these various patents is at issue. To simplify, the patents relate to an air-filtration system made up of: (1) a cylindrical paper air filter; (2) a frame that sits on one end of the filter; (3) a flexible gasket (or “seal member”) that runs around the edge of the frame and rests on a supporting portion of

¹In the JCCS, the parties identified “extension” as a term needing construction in only four of the five ‘432-family patents (i.e., all but U.S. Patent No. 6,610,117 (“the ‘117 patent”)); they did not identify “extension” as being a term needing construction in the ‘598 patent. See JCCS at 3-4. Presumably this is because Donaldson is not asserting any claim in the ‘598 patent or in the ‘117 patent that contains the term “extension.”

the frame (or “seal support”); and (4) a housing into which the frame and filter are inserted. The gasket forms a seal with the housing so that air goes through the filter and not around it.

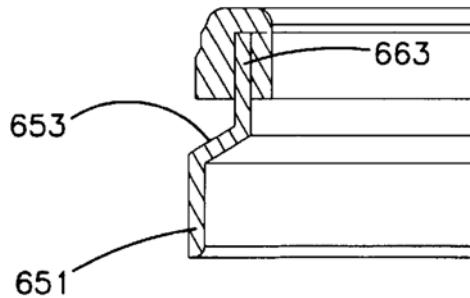
The “extension” claimed in the patents is a portion of the frame that supports the gasket. As noted, the parties dispute *which* portion of the frame is the claimed “extension.” Resolving the parties’ dispute requires the Court to define the term “extension.”

Donaldson asks the Court to accept the parties’ earlier agreed-upon construction — even though, as noted, the parties’ earlier agreed-upon construction has already been rejected by the Court because it would fail to resolve an important dispute about the scope of the relevant claims. Donaldson Initial Suppl. Claim Constr. Br. at 9 [Docket No. 108]. In the alternative, Donaldson proposes construing “extension” to mean “a portion of the frame arrangement that extends from the flow face to support the seal member.” *Id.*

For its part, Baldwin no longer advances the parties’ earlier agreed-upon construction. Instead, Baldwin proposes construing “extension” as “the ‘tip portion of the frame, which projects beyond any step or lip that is also part of the frame.’” Baldwin Suppl. *Markman* Br. at 2 [Docket No. 109].

The simplest way to understand how these proposed constructions differ is to consider how they would apply to the devices shown in two different drawings: (1) a drawing from the ‘432-family patents, and (2) a drawing of Baldwin’s accused air-filtration system. Here is a relevant excerpt from Figure 13 of the ‘432 patent:²

²The ‘432-family patents share the same specification and drawings. Thus, citations to the ‘432 patent stand in for citations to other patents in the family.

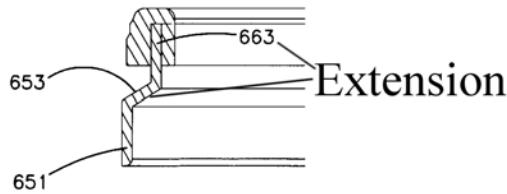


‘432 Patent, Figure 13 (excerpt)

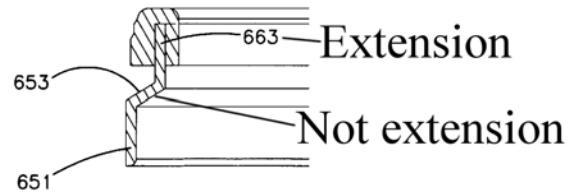
This drawing depicts in cross-section the frame and gasket of one embodiment of Donaldson’s claimed invention. The gasket is at the top of the drawing. The gasket sits on the top of the “tip portion” of the frame, identified with reference number 663. ‘432 Pat. col. 11:10. When the air filter is inserted in the frame, the frame’s “depending lip” — identified with reference number 651 — surrounds the filter. *Id.* col. 11:17. The “tip portion” (663) and the “depending lip” (651) are joined by the “step” portion of the frame, identified with reference number 653.

Id.

Baldwin and Donaldson agree that a claimed “extension” is depicted *somewhere* in Figure 13. According to Baldwin, however, the claimed “extension” is tip portion 663 alone and cannot include step 653. Baldwin Suppl. *Markman* Br. at 4-10. Donaldson disagrees and says that the claimed “extension” is tip portion 663 together with step 653. Donaldson Resp. Suppl. Claim Constr. Br. at 2-4 [Docket No. 111]. The following illustrations show the parties’ different positions as to which portions of Figure 13 are the “extension”:

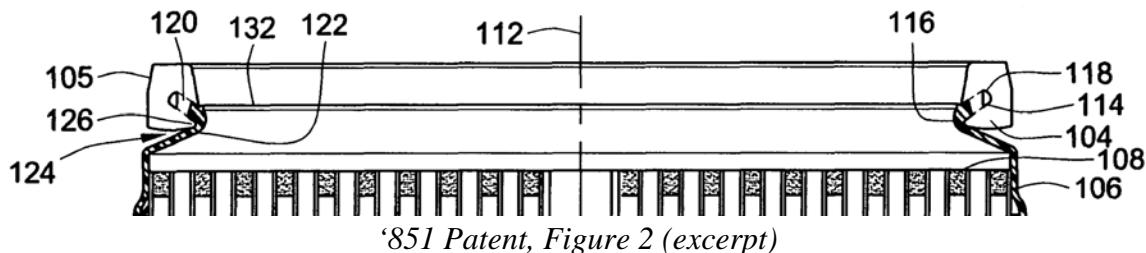


'432 Patent, Figure 13 — annotated by Court to show Donaldson's position



'432 Patent, Figure 13 — annotated by Court to show Baldwin's position

Just as the parties disagree about what part of Figure 13 is an “extension,” the parties disagree about what part of Baldwin’s accused air-filtration system is an “extension.” The gasket in Baldwin’s accused air-filtration system sits upon a seal support that is shaped, in cross-section, like a sideways letter V. Specifically, the seal support in the accused device resembles the support depicted in Figure 2 of U.S. Patent No. 7,318,851 (“the ‘851 patent”), a patent of Baldwin’s that relates to a filtration system. Here is the relevant part of Figure 2 of the ‘851 patent (the gasket is at the top; the air filter is at the bottom):



'851 Patent, Figure 2 (excerpt)

According to Baldwin, the top segment of the sideways-V-shaped frame portion that extends beyond the face of the air filter — i.e., the segment designated above by reference number 114 (parts of which are also designated by numbers 120 and 118) — is equivalent to “tip portion 663” in Figure 13 of the ‘432 patent. And Baldwin says that the bottom segment of the sideways-V-shaped frame portion — i.e., the segment designated above by reference number

122 (and toward which arrow 124 points) — is equivalent to “step 653” in Figure 13 of the ‘432 patent.

Thus, Baldwin asks the Court to construe “extension” in such a way that, if Baldwin’s proposed claim construction were applied to its accused device, only the top half of the sideways-V-shaped seal support — the half that corresponds to item 114 in Figure 2 of the ‘851 patent — would be an “extension.” The other half of the support — the half that corresponds to item 122 in Figure 2 of the ‘851 patent — would *not* be an “extension.”

With this background, the Court turns to the matter of construing the term “extension.”

II. CLAIM CONSTRUCTION

A. “*extension*”

The Court construes the term “extension” in the ‘432-family patents as follows:

An “extension” is that part of the frame arrangement that runs around the frame arrangement’s periphery and extends, at that periphery, beyond the portion of the frame arrangement that meets and is adjacent to the filter element’s flow face.

This is similar to the construction proposed by Donaldson. The Court has modified Donaldson’s proposed construction in four ways. First, instead of defining the extension as “*a portion*” of the frame arrangement, the Court defines it as “*the part*” of the frame arrangement with the specified characteristics. To use the indefinite article “*a*” would invite continued argument from Baldwin about which part of Baldwin’s sideways-V-shaped seal support is an “extension” as claimed in the patent. Second, the Court specifies the location of the extension: around the frame arrangement’s periphery. This location is implicit in the design of the claimed filter system, but the Court believes that it should be made explicit. Third, the Court specifies where the extension does its “extending”: at the periphery. This qualification accommodates a

possible design expressly identified in the patent's specification, in which the center of a filter's flow face could actually project beyond the extension if the filter were frustoconical in shape (i.e., shaped like a cone with the point chopped off).³ And fourth, the Court specifies that the extension extends not simply beyond the flow face, but rather beyond the portion of the frame arrangement that meets and is adjacent to the flow face. This clarification is necessary to ensure that "extension" is not interpreted to include the roughly planar portion of the frame that supports a filter element but that, structurally, has nothing to do with supporting a seal member.

The Court's construction gives the term "extension" its ordinary meaning. But the Court has relied on the intrinsic evidence (including the prosecution history) to further clarify the meaning of "extension" as that term is used in the '432-family patents. *See Phillips v. AWH Corp.*, 415 F.3d 1303, 1313-17 (Fed. Cir. 2005) (en banc); *NTP, Inc. v. Research in Motion, Ltd.*, 418 F.3d 1282, 1293 (Fed. Cir. 2005) ("Because [the] patents all derive from the same parent application and share many common terms, we must interpret the claims consistently across all asserted patents."). Such further clarification is necessary in light of the parties' differing positions with respect to the meaning of "extension."

B. Discussion

The Court discussed above certain preferred embodiments and Baldwin's accused device. The Court did so solely to provide context. The issue before the Court is the meaning of the term "extension" as that term is used in the '432-family patents; that issue is analytically distinct

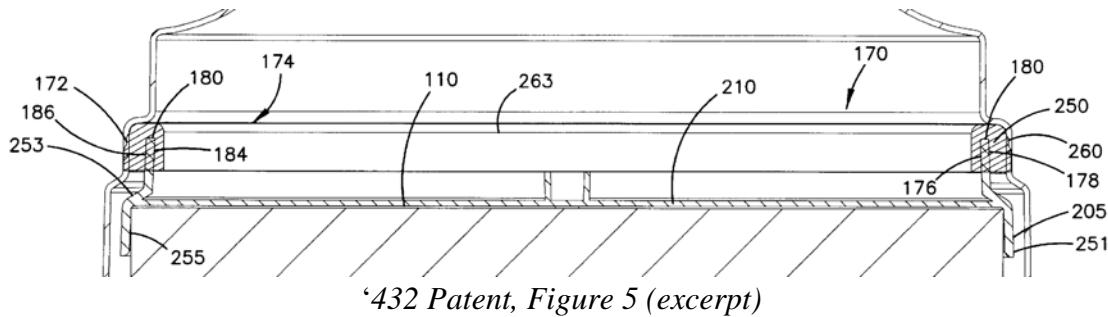
³'432 Pat. col. 6:4-9 ("In arrangements where the flow face is non-planar, such as frustoconical, the projection 174 can be designed to project above only a portion of the flow face. For example, in a frustoconical filter construction, there could be a center portion at or near the core that extends above the projection 174.").

from the question of what part of a preferred embodiment or an accused device qualifies as an “extension” under the proper claim construction.

Anyone seeking to understand the meaning of the term “extension” as it is used in the claims of the ‘432-family patents would naturally turn to the specification to see how the term is used there. But the word “extension” appears in only a single paragraph in the specification — the first paragraph of the “Summary of the Disclosure” — and that paragraph basically parrots the claim language to be construed. The “Summary of the Disclosure” says that a sealing system’s frame arrangement “includes an extension projecting axially from one of the flow faces of the media pack” and “[i]n particularly preferred arrangements, the seal member is supported by the extension of the frame arrangement.” ‘432 Pat. col. 1:34-37.

Moving beyond the unhelpful “Summary of the Disclosure,” one finds a few different things in the patent’s specification that might correspond to the claimed “extension.” The most promising candidate, at first glance, seems to be “rigid projection 174 that projects or extends from at least a portion of one of the first and second flow faces 105, 110 of the filter construction 100.” ‘432 Pat. col. 5:63-66. For one thing, “projection” and “extension” are, in normal usage, essentially synonymous. For another, the “projection 174” is described as “extend[ing]” from a “flow face,” while the “Summary of the Disclosure” describes an “extension projecting” from a “flow face.” These two descriptions are mirror images: in one, a projection extends; in the other, an extension projects.

Given that “projection 174” is a good candidate for being an “extension,” it makes sense to look closely at “projection 174.” But only a single figure, Figure 5, includes a label identifying item 174, as shown in this excerpt:

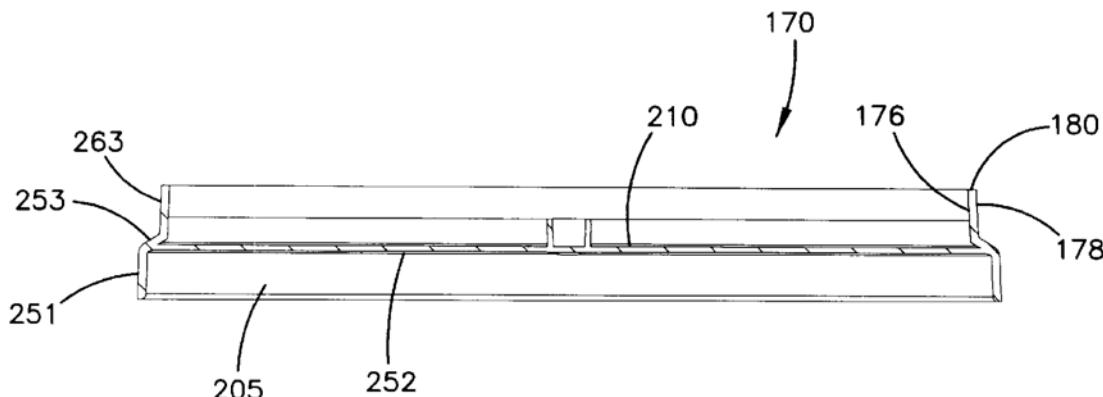


But Figure 5 confuses more than it clarifies. A line with an arrow leads from reference number 174 to what appears to be the gasket (or “seal member”) depicted in this drawing and labeled with number 250, and the arrow touches the line that corresponds to the top of the gasket. According to the regulation governing “lead lines” in patent drawings, “an arrow touching a line . . . indicate[s] the surface shown by the line looking along the direction of the arrow” 37 C.F.R. § 1.84(r)(2). Thus, according to at least part of Figure 5, item 174 is not part of the frame at all; rather, it is the top surface of a gasket.

Yet this reading of the line connecting reference number 174 to the figure cannot be reconciled with the balance of Figure 5. Specifically, the patent’s specification says that “projection 174 . . . has a pair of opposite sides 176, 178 joined by an end tip 180.” ‘432 Pat. col. 6:11-13. The numbers 176, 178, and 180 all appear on the right-hand side of the excerpt of Figure 5 above, and they clearly designate the inside surface, outside surface, and tip surface (respectively) of the portion of the frame construction that supports the seal member. If items 176, 178, and 180 designate portions of projection 174, then projection 174 cannot be the top surface of the gasket.

Apart from projection 174, the patent contains another candidate for being an “extension”: item 263, described as a “tip portion . . . or annular sealing support” that is

“preferably include[d]” in “the particular projection 174 depicted” in Figure 6. ‘432 Pat. col. 7:29-31. Here is Figure 6:



‘432 Patent, Figure 6

The “tip portion” denoted by reference number 263 corresponds to tip portion 663 depicted in the excerpt from Figure 13 discussed in the introduction above. Similarly, reference number 253 designates a “step” that corresponds to step 653 depicted in Figure 13; and reference number 251 designates a “depending lip” that corresponds to depending lip 651 depicted in Figure 13. Accordingly, the Court will sometimes refer to “tip portion 263/663,” “step 253/653,” and “depending lip 251/651.”

Because Figure 6 does not include reference number 174 at all, it is impossible to tell from Figure 6 what “the particular projection 174 depicted” in the figure “includes.” As noted, the specification says that projection 174 includes tip portion 263/663. ‘432 Pat. col. 7:29-31. But neither the specification nor Figure 6 indicates how step 253/653 and depending lip 251/651 relate to projection 174.

The specification does say that “[b]etween the tip portion 263 and the depending lip 251, the frame 205 includes a step 253.” ‘432 Pat. col. 7:34-36. Thus, it is clear that “frame 205”

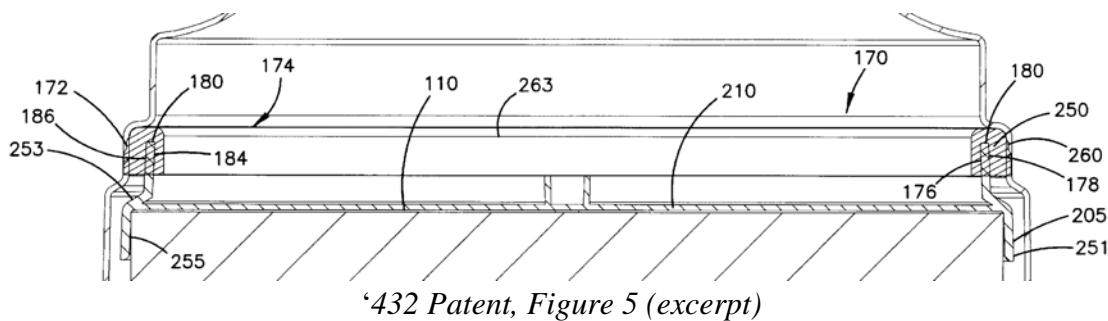
includes three regions: (1) a “tip portion 263”; (2) a “step 253”; and (3) a “depending lip 251.”

But whether the second and third of these regions belongs to “projection 174” is unclear.⁴

Figure 6 suggests, however, that “projection 174” and “tip portion 263” are identical.

Specifically, the right-hand side of Figure 6 includes reference numbers 176, 178, and 180, and those numbers clearly point to different surfaces of what, on the left-hand side of Figure 6, is identified as tip portion 263. At the same time, the patent’s specification says that “projection 174 . . . has a pair of opposite sides 176, 178 joined by an end tip 180.” ‘432 Pat. col. 6:11-13. If both projection 174 and tip portion 263 have the same opposite sides and end tip — as they seem to — then projection 174 and tip portion 263 would seem to be the same thing.

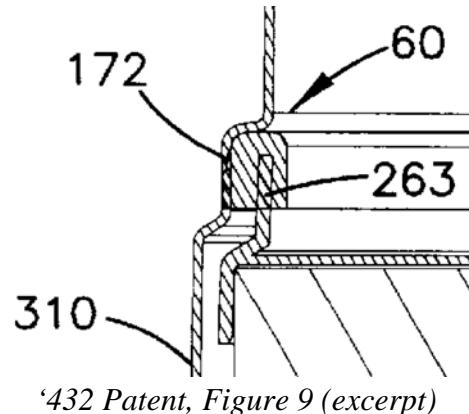
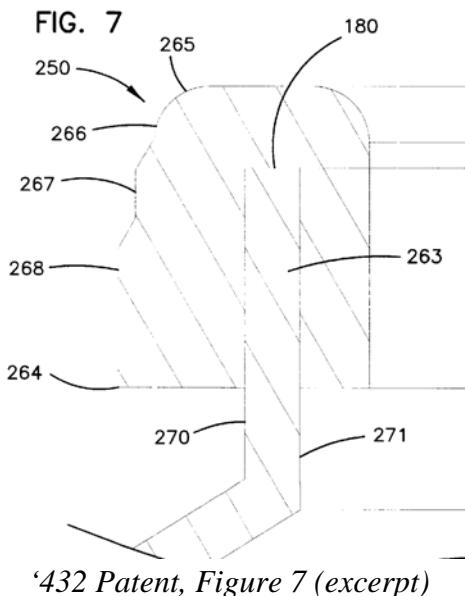
At first glance, Figure 5 casts doubt on the equivalence of projection 174 and tip portion 263/663. But a careful review of Figure 5 and other patent drawings leads to the unavoidable conclusion that Figure 5 includes at least two errors. Because of those errors, Figure 5 is an unreliable guide for identifying projection 174 and tip portion 263. Again, here is Figure 5:



⁴In its earlier *Markman* order, the Court said that “projection 174” included these three regions. *Markman* Order at 7-8. Upon further reflection, the Court finds — as Donaldson pointed out, Donaldson Resp. Suppl. Claim Constr. Br. at 3 n.2 — that this statement was mistaken. As noted, it is not clear from the patent’s specification or drawings precisely what “projection 174” includes.

The Court already noted that reference number 174 in Figure 5 does not make sense because an arrow links that number to the top of the seal member. And it turns out that reference number 263 in Figure 5 likewise does not make sense. In Figure 5, reference number 263 is not connected to the edge of the frame (as it is in Figure 6). Instead, number 263 is in the *middle* of the drawing and is connected to what appears to be a contour line depicting the shoulder of the seal member. Further, number 263 seems to designate something different from what number 174 designates, because the two numbers are connected to different lines, in different ways.

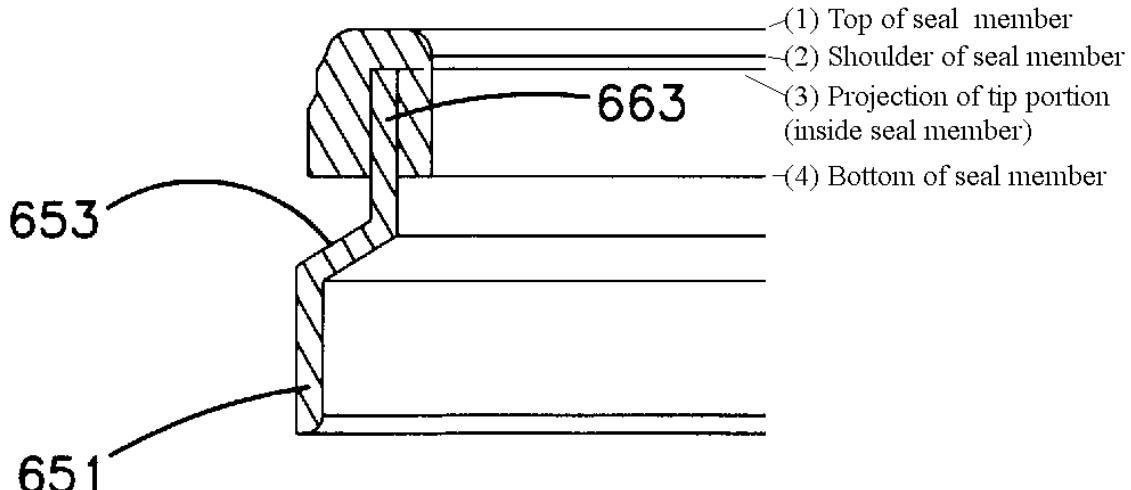
The use of reference number 263 in Figure 5 is inconsistent with the use of that number, and related reference number 663, in other patent drawings. For instance, in Figures 7 and 9, reference number 263 clearly designates the portion of the frame that supports the seal member:



Likewise, reference number 663 in Figure 13, as shown in the introduction, clearly designates the portion of the frame that supports the seal member.

Based on the consistent use of reference numbers 263 and 663 in Figures 7, 9, and 13, it is apparent that the use of reference number 263 in Figure 5 is erroneous. The nature of the error in Figure 5 can be inferred by looking at how the seal member is depicted in Figures 7 and 13.

In Figures 7 and 13, the straight-on view of the seal member — i.e., the view of the seal member depicted immediately to the side of the cross-hatched, cross-sectional view of the seal member — is drawn with four lines, which represent, from top to bottom: (1) the top of the seal member; (2) the shoulder of the seal member; (3) the projection of the tip portion found inside the seal member; and (4) the bottom of the seal member. This annotated excerpt from Figure 13 identifies these four lines:



'432 Patent, Figure 13 (excerpt) — annotated by Court

In Figure 5, by contrast, the straight-on view of the seal member is drawn with only *three* of these four lines. The line that should represent the projection of the tip portion was mistakenly omitted. (Figure 9 likewise includes a three-line depiction of the straight-on view of the seal member and omits a line representing the projection of the tip portion.) Thus, reference

number 263 in Figure 5 should point to the missing line, rather than to the line that represents the shoulder of the seal member.

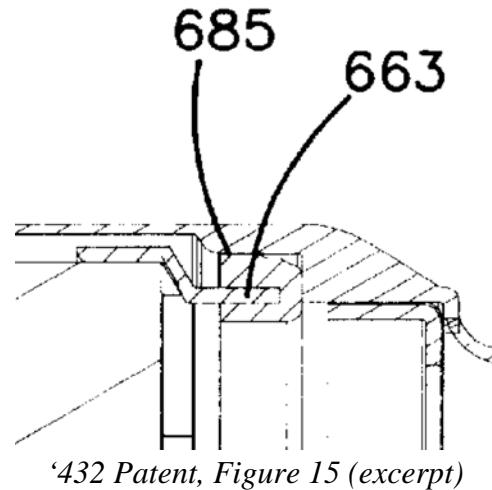
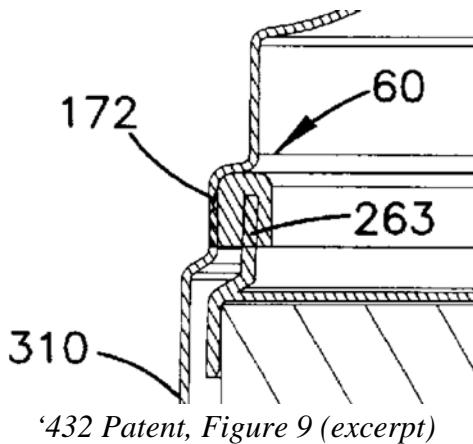
This analysis resolves what portions of the patent drawings reference number 263/663 refers to: the “tip portion” of the frame. And this analysis revives the likelihood — based on Figure 6, as discussed above, but called briefly into question by the errors in Figure 5 — that projection 174 is identical to tip portion 263/663. But even if projection 174 and tip portion 263/663 are identical, this does not resolve the question of whether the claimed “extension” corresponds to tip portion 263/663 *only* (as Baldwin contends) or to tip portion 263/663 *together with* step 253/653 (as Donaldson contends).

The prosecution history of the ‘432 patent answers this question. In responding to an office action, the patentee repeatedly referred to “extension 263” and “extension 663.” Budd Decl. Repl. Ex. 26 at 4 [Docket No. 102]. No reasonable person reading the prosecution history could think that when the patentee said “extension 263” and “extension 663,” he really meant “extension 253 plus 263” or “extension 253 plus 263.”⁵

Donaldson gamely argues that the patentee said “extension 263” and “extension 663” only because in the drawings to which the patentee referred — Figures 9 and 15 of the ‘432 patent — the “step” is not labeled with reference number 253/653. Donaldson Initial Suppl. Claim Constr. Br. at 7-8.

⁵The Court’s reading of the prosecution history has nothing to do with “prosecution disclaimer.” *See Ventana Med. Sys., Inc. v. Biogenex Labs., Inc.*, 473 F.3d 1173, 1182 (Fed. Cir. 2006) (explaining and applying “the doctrine of prosecution disclaimer”). The patentee did not “disclaim” a step when he referred to “extension 263” and “extension 663.” But the patentee *did* make an affirmative assertion (albeit an implicit one) about the meaning of the word “extension.” It is this affirmative assertion, rather than a nonexistent disclaimer, that the Court relies on in construing the term “extension.”

It is true, as these excerpts of Figures 9 and 15 show, that step 253/653 is not labeled in these drawings:



But these drawings do not exist in isolation; they exist alongside other drawings in which tip portion 263/663 and step 253/653 are identified as different segments of the frame construction. In light of *all* of the patent drawings, the patentee's references in the prosecution history to "extension 263" and "extension 663" clearly indicate that, in the embodiment pictured in the patent, step 253/653 is not part of the claimed "extension."

But it does not follow — as Baldwin argues — that the claimed extension can *never* include *any* step. The parties, in their claim-construction memoranda, have framed their dispute in terms of a single question: Does the claimed "extension" include a "step" or not? But their dispute actually involves two different (though related) questions: First, with respect to the *particular embodiment* depicted in the patent drawings, does the claimed "extension" include the *particular step* 253/653 shown in the patent drawings? Second, as a more general matter, does

the claimed “extension” necessarily exclude *any step*, even one different from step 253/653 shown in the patent drawings?

As noted, with respect to the first question — whether step 253/653 shown in the patent drawings is part of the claimed “extension” — the Court agrees with Baldwin that step 253/653 is *not* part of the claimed “extension” in the embodiment depicted. But as to the second question — whether the claimed “extension” can include *any* step — the Court rejects Baldwin’s argument.

To begin with, Baldwin is mistaken in asserting that the plain meaning of the word “extension” supports construing “extension” to expressly exclude a “step.” Baldwin Suppl. *Markman* Br. at 10-11. An “extension” is something that “extends.” Nothing prevents an “extension” from extending straight out, to the side, or in zig-zag fashion. Indeed, to the extent that Baldwin wants the term “extension” construed to exclude any step — even a step that extends at an angle away from a filter’s flow face — Baldwin’s proposed construction is contrary to the plain meaning of the word “extend.”

The Court also rejects Baldwin’s reliance on certain language in the ‘851 patent, Baldwin’s own patent on an air-filtration system. Baldwin Suppl. *Markman* Br. at 11-12. In that patent, the patentee — perhaps in light of the very patents asserted by Donaldson in this case — described the sideways-V-shaped seal support in the ‘851 patent (pictured in the introduction above) as having two parts: (1) a “canted annular extension” (the top segment of the V); and (2) a “canted intermediate annular segment” (the bottom of the V). ‘851 Pat. col. 4:6, col. 4:31. The examiner then used these same terms in correspondence with the patentee. Pals Suppl. Decl.

Ex. RR at 2-3 [Docket No. 110]. This extrinsic evidence does not persuade the Court that the word “extension” as used in the ‘432-family patents necessarily excludes a “step.”⁶

Finally, the Court rejects Baldwin’s argument that claim 36 of U.S. Patent No. 7,303,604 (“the ‘604 patent”) shows that the claimed “extension” cannot include a “step.” The relevant claim language relates to a “frame construction and a seal member” and provides:

said frame construction including a *lip member* secured to the media pack at the second flow face and an *extension* projecting from the lip member and projecting axially from the second flow face;

- (A) said *extension* including an *end tip*[,] an outer circumferential surface, and an opposite inner surface;
- (B) said *frame construction* including a *step* between the *end tip* and the *lip member*

‘604 Pat. claim 36, col. 20:64-67 to col. 21:1-5 (emphasis added).

This claim language does not show that the claimed extension excludes a step.

Subsection (B) differentiates between three parts of the “frame construction”: a step, an end tip, and a lip member. In terms of the drawings from the ‘432 patent excerpted above, these three

⁶Baldwin also points out that in connection with the ‘851 patent, the examiner considered a drawing from Donaldson’s ‘598 patent that shows in cross section a frame arrangement virtually identical to the frame arrangement depicted in the various figures from the ‘432 patent included in this opinion. Baldwin Suppl. *Markman* Br. at 12. The examiner identified the frame portion that corresponds to tip portion 263/663 as a “straight annular extension.” Pals Suppl. Decl. Ex. RR at 2.

But all this means is that the examiner — like the Court — considered tip portion 263/663 of the particular embodiment depicted to be the claimed “extension.” It does not follow that because tip portion 263/663 does not include a step, the claimed extension can never include any step.

parts appear to correspond to step 253/653, tip portion 263/663, and depending lip 251/651. And subsection (A) says that the “extension” includes an “end tip.”

Notably, subsection (A) describes the “extension,” while subsection (B) describes something else — the “frame construction.” Further, subsections (A) and (B) use the open-ended word “including” to characterize (respectively) the claimed “extension” and “frame construction.” It is thus entirely possible for this claim language to cover a device with (1) a “frame construction” that includes a step and (2) an “extension” that includes *both* an “end tip” and a “step” (which might or might not be the same step included in the “frame construction”). Again, just because the particular extension depicted in the drawings of the ‘432 patent — tip portion 263/663 — includes an “end tip” but no step, it does not follow that the claimed extension can *never* include a step.

To sum up, an “extension” as the Court construes the term could include a step. If the step is part of “that part of the frame arrangement that runs around the frame arrangement’s periphery and extends, at that periphery, beyond the portion of the frame arrangement that meets and is adjacent to the filter element’s flow face,” then the step is part of the claimed extension.

ORDER

Based on the foregoing and on all of the files, records, and proceedings herein, IT IS HEREBY ORDERED THAT the term “extension” is construed as stated above.

Dated: October 11, 2011

s/Patrick J. Schiltz

Patrick J. Schiltz

United States District Judge